Pearl S. Buck International Inc.

Partners for Health Child Survival Project

Leyte, Philippines

HEARTH OPERATIONS RESEARCH

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Table of Contents

Background **5**
OR Hearth Planning **5**
Formulate questions of interest 5
Goals and Objectives 7
Methodology 10
OBJECTIVE 1: Review of Current Hearth Framework **12**
Introduction 12
Methodology 12
Findings 13
Objective 1: Summary and recommendations 13
OBJECTIVE 2: Review of Current Growth Monitoring Framework **14**
Introduction 14
Methodology 14
Findings 15
Objective 2: Summary and recommendations 16
OBJECTIVE 3: Review and document the current implementation of growth monitoring and Hearth nutrition program **17**
Introduction 17
Methodology 17
Findings 18
Objective 3: Summary and recommendations 21
OBJECTIVE 4: Uncover remaining barriers in current Hearth practices **24**
Introduction 24
Methodology 24
Findings 24
Objective 4: Summary and recommendations 28
OBJECTIVE 5: Determine the Factors that Affect the Rehabilitation of Children **30**
Introduction 30
Methodology 30
Findings 33
Objective 5: Summary and Recommendations 37
OBJECTIVE 6: Determine capability of community, LGU and family to support the scale-up of Hearth implementation **39**
Introduction 39
Methodology 39
Findings 40
Objective 6: Summary and Recommendations 42

OBJECTIVE 7: Factors in Replication 44
Introduction 44
Methodology 44
Findings 44
Objective 7: Summary and Recommendations 45
Complete Summary and recommendations 47
Annexes for Objective 3 49
Annex A: FGD Questions with Health Volunteers 49
Annex B: FGD Findings from Health Volunteers 49
Annex C: Key Interview with Barangay Officials (Questions & Findings) 53
Annex D: Key Interview of Mothers/Caregivers (Complete Attendance and Incomplete Attendance) 56
Annexes for Objective 5 62
Annex E: KI Questions for Mothers or Caregivers 62
Annex F: KI Questions for Health Workers 62
Annex G: KI Questions for Health Professionals 63

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Glossary of Acronyms

BCLP	Basic Child Learning Package
BHC	Barangay Health Committee
BHW	Barangay Health Worker
BNS	Barangay Nutritional Scholar
CHDO	Community Health Development Officer – PSBI staff
CHO	City Health Office
DOH	Department of Health
EPI	Expanded Program of Immunization
FGD	Focus Group Discussion
FHSIS	Field Health Services Information System
GMC	Growth Monitoring Card
GMP	Growth Monitoring Program
HNP	Health & Nutrition Post
IEC	Information – Education - Communication
KI	Key Informant interview
LBW	Low Birth Weight
LGU	Local Government Unit
NERS	Nutrition Education Rehabilitation Session
OPT	Operation Timbang
OR	Operations Research
PDI	Positive Deviance Inquiry
PHCSP	Partners for Health Child Survival Project
PHO	Public Health Office
PSBI	Pearl S Buck International
PRA	Participatory Rapid Appraisal
RHM	Rural Health Midwives
RHU	Rural Health Unit

Translations

Balik Patak	Immunization campaign against Polio
Barangay	Smallest unit of government (community)
Health & Nutrition Post	PHCSP implemented health center satellites
Kagawad	Councilor; member of local government council
Garantisandong Pambata	Children's health outreach program; occurs 2x/year
Operation Timbang	DOH Annual weighing of children under 5 years
Purok	Subsection of barangay

HEARTH OPERATIONS RESEARCH

Background

Nutrition is an important part (approximately 40%) of the interventions of Pearl S Buck International's (PSBI) Partners for Health Child Survival Project (PHCSP) in Leyte, the Philippines. Nationwide, 28% of children under 5 are moderately or severely underweight (defined as <2 or 3 standard deviations for weight for age); 6% suffer from moderate or severe wasting (weight for height) and 30% suffer from moderate or severe stunting (height for age)[1]. Several national surveys indicate that in our project areas – Ormoc and Merida in the Visayas – the rates of underweight may be higher[2]. The Department of Health supports growth monitoring as well as some food supplementation. (PHCSP is not involved in the supplementation.) To more fully address malnutrition, PHCSP began Hearth as a pre-pilot with one barangay in September 2000. Waverly Rennie, a consultant, helped us design our pre-pilot. Since then, 4 additional barangays have initiated Hearth.

At the time this research began in June 2002, 42 children had participated. They range in age from 7-81 months. (The target age for Hearth is 6-36 months but the partners decided to allow older children to join because of the enthusiasm of their parents.) The average age was 32 months (or 3 years old). Eighteen children were under 2 years, 17 were between 3 and 5 years, and 7 were above five years. Breastfeeding status of these children was unavailable.

OR Hearth Planning

On June 15 & 17, 2002, the staff of PSBI's Partners for Health Child Survival Project met to plan an operations research study on Hearth. The agenda of this planning session follows:

1. Formulate questions of interest
2. Formulate goals and objectives
3. What do we know? (Facts on growth monitoring program (GMP)/ Hearth/nutrition)
4. What are our assumptions?
5. Methodology/ strategies to achieve goal and objectives
6. Who are the people involved?
7. Scheduling

Formulate questions of interest

The group began by brainstorming the question "what do we need to know"? We listed all our questions pertaining to GMP, Hearth and nutrition. Next, we grouped them into the following components, in order of priority.

[1] State of the World's Children, UNICEF, 2001.

[2] These surveys include the DOH run OPT, a survey by Helen Keller International, and a project initiated PRA – all 1997-1998. OPT from 2002 states Ormoc has 33% malnutrition, and Merida has 27%.

GMP

Is recording and counseling consistent?

1. Is scale at eye level?
2. Is scale calibrated to 0?
3. Do BHWs round weights?
4. Are children consistently clothed or naked?
5. Why are some kids backsliding?
6. Are children actually backsliding?
7. Does actual GMP system allow for follow up?
8. Is growth monitoring and Hearth planning of good quality?

Hearth sessions, or Nutrition Education Rehabilitation Sessions (NERS)

1. Is education component of NERS very strong? Are mothers actually involved during NERS?
2. For subsequent NERS, is 6 days enough? Is it an effective solution?

Barriers

1. Is it feasible to change time of the NERS schedule?
2. Can neighbors share parenting to attend NERS?
3. Are required food contributions a barrier to NERS participation?

Rehabilitation

1. What follow up are health workers providing?
2. Do caregivers maintain practices at home? (post NERS)
3. What factors affect the rehabilitation of children?

Replication/Sustainability (with immediate focus on replication)[3]

1. Is scale up feasible within the Hearth barangay[4]?
2. How do we get the Local Government Unit and midwives[5] to use Hearth monitoring system? Or if they do use the system, how do we know?
3. Do families enhance food security with gardens?
4. Are Barangay Health Committee and council providing support to Hearth?
5. Do families with gardens have higher rehabilitation rates than families without gardens?

[3] We defined replication as scale up within a community during the remaining life of the project. Sustainability was defined as endurance and/or scale up after the project ends.

[4] Barangay, or community, is the smallest level of government in the Philippines.

[5] Midwives are the primary health service professional at Barangay Health Centers, or community clinics. Midwives supervise Barangay Health Workers (BHWs) and Barangay Nutritional Scholars (BNS). Further explanation on BHWs and BNSs is on page 15.

Goals and Objectives

After confirming that the above questions defined our research interests, we used them to develop the goals and objectives of the OR on Hearth. The group drafted the goal first and then proceeded into writing up the specific objectives. Afterwards, the assumptions and facts that we articulated were grouped under the appropriate objective. The assumptions represent statements about Hearth implementation that staff believed happened, but could not be sure. The facts are statements that the staff is quite confident in making, having witnessed examples on numerous occasions. The goal, objectives, facts and assumptions became the basis for the actual OR study.

Goal

To state definitively the best practices regarding quality processes, use of data and sustainability of growth monitoring and Hearth nutrition program.

Objectives, Facts and Assumptions

1. Review current Hearth framework/plan for clarity and quality.
   a. Is education component very strong?
      - Daily theme
      - Mothers not involved in cooking should be receiving education

   b. Are the mothers actively involved in the NERS tasks?
      - A few mothers should be cooking with the supervision of a health worker or trained mother
      - A few mothers should be entertaining the children with a supervision of the health worker or trained mother
      - Other mothers should be attending the health education session led by a health worker or trained mother
      - Mothers should be able to demonstrate key practices such as hygiene, breastfeeding, and active feeding of children, and show understanding of the nutrient content of food being prepared

2. Review current growth monitoring framework/plan for clarity and quality.
   a. Is recording consistent?
      - Is scale at eye level?
      - Are children consistently clothed or unclothed?
      - Is the scale consistently calibrated to 0?
      - Do the health workers record exact weight without rounding?

   b. Is counseling consistent?
      - Is the health worker telling the caregiver the child's weight, nutritional status and the meaning of this information?

- Explaining follow up (when they should bring the child back; if the health worker conducts home visits)
- Health workers provide brief health education
- Ensuring that the caregiver understands and agrees

3. Review and document the current implementation of growth monitoring and Hearth nutrition program

Fact

- **Weighing is done every month**
- **Scale is not always at eye level**
- **Weighing for Hearth children and the regular weighing of children is done in separate schedule**
- **Mothers don't always bring GMCs**
- **Each purok with existing Hearth has own weighing scale**
- **Not all of the mothers in Hearth have attended Basic Child Learning Package classes (BCLP)**
- **Children are always weighed with clothes on; not always with shoes on**

Assumptions

- **Scale calibrated to 0**
- **Weighings are done at an equal interval**
- **All BHWs/BNS are trained in growth monitoring, weighing and recording etc**
- **Weights are always exactly recorded**
- **Weights of children in Hearth are recorded in GMCs**
- **A community that has implemented BCLP classes has better participation and rehabilitation**
- **Mothers' attendance has no correlation to rehabilitation**
- **Caregivers maintain key practices of Hearth at home**
- **To reduce bias, follow up should be unannounced, at mealtime, by health workers not Community Health Development Officers (CHDO – PHCSP staff)**
- **Hearth children in barangays with active involvement of BHCs will have better results and better access to health services etc.**

a. Is education component very strong? (Same as # 1)
b. Are the mothers actively involved in the NERS tasks? (Same as # 1)
c. Is recording and counseling consistent? (same as # 2)
d. Rehabilitation of children enrolled in Hearth nutrition program
   - The frequency of follow up visits by the health workers
   - Health workers and not the CSP staff should do unannounced follow up visit

- Health workers should observe during mealtime (at home) and use the PDI questionnaires and the checklist
- During the NERS and the follow up visits by the health workers, the caregivers should be encouraged to maintain key practices at home

e. Do the mothers bring growth monitoring cards (GMC) consistently?

4. Test assumptions and uncover remaining barriers in current Hearth practices and modify the plan for Hearth nutrition program when necessary.
   a. Caregivers don't consistently attend the Hearth NERS because of the need to work in the plantation/farm
      - The neighbors maybe able to share responsibility of bringing the children to the NERS
      - Consider moving the NERS schedule after work
      - Consider using a graduate mother for testimonies on the importance of attending the NERS
   b. Do the required food contributions discourage some mothers from attending?
   c. Review documentation of NERS schedules (6 days vs. 12 days and once a week vs. 12 days) to see the weaknesses and strengths of the two strategies.
      - Is the 12 day NERS too long and discouraging the mothers from attending?
      - For the subsequent NERS, is 6 days an effective solution?

5. Determine factors that affect rehabilitation of children.

Assumptions

- **Having active Barangay Health Committees (BHC) increases the chances of sustaining the Hearth and other activities.**

   a. Cost effectiveness of rehabilitation

6. Determine capability of community, Local Government Unit (LGU) and family to support the scale up of the Hearth implementation. (This is for project duration.)

Fact

- **Scale up begins by reaching all malnourished children in a Hearth barangay.**

Assumptions

- **Hearth children in barangays with active involvement of BHCs have better results and better access to health services etc.**
- **Having active BHCs increases the chances in sustaining the Hearth and other activities.**

a. Are LGUs and midwives using the Hearth monitoring system[6]?
   - If yes, how do we measure and document the utilization of the system?
   - If not, how do we encourage them to use it?
b. Do the kagawads and the Barangay Health Committee provide support?
   - If yes, how do we measure and document their support?
   - If not, how do we encourage them to support it?
c. Do families/communities enhance food security with gardens?
   - Are the families/communities who have backyard gardens more likely to sustain rehabilitation?
   - Does having gardens in the family/community help prevent malnutrition in the long term?
d. How do we determine priorities of replication to non Hearth CSP barangays within the remaining life of the project?

7. Determine necessary factors in replication (after project life).
   a. Potential factors include:
      - BHC
      - Health worker follow up
      - Kagawad and midwife support
      - LGU

Methodology

The following are the methodologies used in gathering the data:

1. Review of documents
2. Focus Group Discussion
3. Key informant Interview
4. Observation

After each objective team prepared their tool, they presented it to the full group for comments. The tools were then revised according to the staff comments. Interview questions were not pre -tested.

The purpose of this study was strictly for operations assessment - to determine the quality of the framework utilized as well as the quality of implementation - and not for impact assessment. No control group was utilized. This study was

[6] Hearth monitoring system includes records for the child's date of birth, attendance, monthly weights, and nutritional status.

qualitative in nature; analysis did not include confidence intervals. Nonetheless, the following were considered markers of project success:

- The child gains weight, as determined by weight for age
- Positive change in nutritional status
- Positive change in maternal and family behaviors (as determined by maternal and health worker perceptions.)

People Involved

The 8 staff participating in the planning were equally divided into 4 teams. The first team was responsible for the first objective, and so on. Forty six individuals were interviewed, either using FGD or KI.

Scheduling of Activities

Given the depth of the 7 objectives and the time needed to fully answer each one, it was decided to focus on the first 4 in the days allotted in June, 2002. Research on the remaining three occurred in November 2002. After finalizing the tools for objectives 1-4, the group mapped out activities for the next three days.

Date	Activity
June 19, 2002	• Briefing with partners and staff. • Review of documents (Groups 1-2) • Review of documents (Groups 3-4)
June 20, 2002	• Review of documents (groups 1 & 2) • Field work (groups 3 & 4)
June 21, 2002	• Field work (AM) • Debriefing (PM)
June 24 –25, 2002	• Write up

Teams 1 and 2 were able to finish their document reviews in one day, so most members joined the field work for the 3rd and 4th groups. Several partners from PHO, RHU and CHO participated in the field work on June 20 and 21st, and a few participated in the document review on the 19th.

OBJECTIVE 1: Review of Current Hearth Framework

Introduction

The first objective of the Hearth Operations Research was to review the current Hearth framework for clarity and quality. We reviewed the existing documents to understand the actual 12-day Nutrition Education Rehabilitation Session (NERS, or Hearth sessions) implementation framework. The team formulated a checklist which specified items to be reviewed under the NERS implementation framework, including the educational component. Each document was reviewed using the checklist to determine presence, clarity and quality of each element.

Methodology

Documents Used

- Field Guide on Designing a Community Based Nutrition Program using the Hearth Nutrition Model and the Positive Deviance Approach, Monique and Jerry Sternin and David Marsh, Save the Children, December 1998
- Positive Deviance Inquiry (PDI) questionnaire, created for PHCSP by Waverly Rennie and staff
- PDI Observation checklist, adapted from Field Guide for PHCSP by Waverly Rennie and staff
- Wealth ranking guidelines, created for PHCSP by staff
- Process documentation for pre-pilot in Sto. Nino, February 12, 2001 (PHCSP report)
- Hearth monitoring forms, created for PHCSP by staff
- Detailed Implementation Plan (DIP), PHCSP, June 30, 1999
- Philippines Food Composition Table 1997, Food and Nutrition Research Institute, Department of Science and Technology
- Hearth implementation plan of barangay Monterico, PHCSP, August 2001

Tool

The checklist consisted of 16 items. All items were based on the "questions of interest" formulated during the planning session.

1. Daily theme including messages
2. Suggested IEC materials
3. Suggestions on division of tasks of health workers
4. Suggested daily scheduling
5. Suggested tasks of mothers during NERS
6. Tells the roles of the health workers in the NERS
7. Suggests possible involvement of other community members during NERS
8. Tells who will cook Hearth foods
9. Tells who will entertain the children
10. Do the mothers need to attend the health education prior to actual feeding?

11. Suggested key practices of mothers on breastfeeding, hygiene, active feeding of children, and identification of food
12. Suggests criteria for the selection of NERS venue /center
13. Suggests the ideal schedule of NERS
14. Tells who participates in menu development
15. Tells the amount and the caloric content of food that each child needs
16. Suggested indigenous food sources for Hearth menus

Findings

1. Field Guide on Designing Community-Based Nutrition Program
   All items in the checklist under the educational component and NERS implementation were present and stated clearly in this document.
2. Pre-pilot Documentation: This document stated clearly who will cook the Hearth food and entertain the children, as well as the key practices of mothers such as hygiene, breastfeeding, active feeding of children, and identification of food. It further stipulates criteria for the selection of NERS centers, ideal schedule for NERS, who will participate in menu development, the amount and caloric content of food each child needs and suggested indigenous food sources. Other items, including the educational component and the roles of health workers and other community members were not present in this document.
3. Positive Deviance Inquiry questionnaire: The only item that was clearly stated in this document was the suggested key practices of mothers.
4. PDI observation checklist: Only states the key practices of mothers.
5. Caloric table, Hearth implementation plan, Philippines Food Composition Table, Hearth monitoring forms, wealth ranking guidelines, DIP: None of the remaining documents state any the items reviewed in the checklist.

Objective 1: Summary and recommendations

The education component of these documents was especially weak, compared to the logistics and feeding components. The need for mothers who were not cooking to have a health education session was stressed in the Field Guide but was not found in the documentation for the pre-pilot (the first barangay to implement Hearth). The suggested daily themes or messages that were present in the reviewed documents were limited to hygiene (washing the hands before and after eating, washing the foods before cooking), active feeding and breastfeeding. The Field Guide was used as a reference during the pilot phase, as well as for formulation of the PDI questionnaire and observation checklist. Since most of the items in the checklist were found only in the Field Guide, this document represents the most complete reference guide to date for Hearth implementation. In the absence of other, more complete guidelines, it is recommended that the Field Guide be followed even more closely. Overall, these documents suggest that no clear and detailed framework was followed during the Hearth implementation.

OBJECTIVE 2: Review of Current Growth Monitoring Framework

Introduction

The purpose of the second objective was to review the current growth monitoring framework for clarity and quality. We wanted to understand the actual recording and counseling practices. The rationale was that the growth monitoring practices affect all aspects of Hearth. This review has different implications than that undertaken in the first objective because growth monitoring is controlled to a greater extent by partners (rather than CSP staff) than is Hearth, although the project feels a level of confidence in our ability to affect some change as needed. We reviewed the following documents using the checklist we formulated to determine presence, clarity and quality of each element.

Methodology

Documents Used

1. Growth Monitoring Cards –published by Department of Health (DOH)
2. Field Health Services Information System records (FHSIS) - the DOH monthly record keeping system for activities and procedures occurring at DOH clinics and hospitals
3. Operation Timbang – an annual, nationwide weighing intervention for children under 5, sponsored by DOH
4. Hearth monitoring forms for weight – created for and by PHCSP
5. Weight for age table – published by DOH
6. Training records of health workers – all by DOH and/or PHCSP
   - Training for community health volunteers on how to conduct caregivers class, counseling, and growth monitoring and promotion using the child growth basic learning package
   - Training for Barangay Health Workers (BHWs[7]) on IEC kit[8] utilization
   - Basic training course for BHWs (Ormoc)
   - Basic training course for BHWs (Leyte)
   - Training for Barangay Nutrition Scholars (BNS)

Tool

1. Scale at eye level
2. Children's clothing off
3. Children's shoes off
4. Calibration per weighing
5. No rounding of weight

[7] Barangay Health Workers and Barangay Nutrition Scholars are volunteers who are identified, trained, and receive an honorarium from the LGU. Every barangay has at least one BHW, and one BNS, although one person can fill both roles.

[8] IEC kit on relevant topics created by PHCSP.

6. Plotted on GMC during weighing session
7. Plotted on BHW's form during weighing session
8. BHW form shows the number of malnourished children
9. BHW form shows pattern of children weighed
10. Documentation format used by BHW, BNS after health education and home visits

    Aspects on counseling w/ caregiver by BHW, BNS:
11. Tells the child's weight
12. Tells the child's nutritional status
13. Explains meaning, importance & pattern
14. Discusses return visit by caregiver
15. Discusses any home visit as necessary
16. Provides health education
17. Ensures understanding & compliance

Findings

1. Growth Monitoring Cards

   The cards clearly state that clothing and shoes are to be removed and that the scale should be calibrated to 0 prior to each weighing. It also explains plotting on the cards, but not on the BHW forms. Counseling skills are only vaguely mentioned.
2. Training for BHW/BNSs on how to conduct caregivers class, counseling, and growth monitoring and promotion using the child growth basic learning package

   This training agenda states that BHW/BNS should "demonstrate skills in weighing, plotting, and interpreting the child's growth curve", as well as in "effective facilitation and counseling". The document does not specify specific activities in recording or counseling, or what constitutes "effective facilitation and counseling".
3. Training for BHWs on IEC kit utilization

   This training document only states that BHWs are expected to provide health education. No skills on recording are mentioned, and no specific qualities to counseling are provided.
4. Training for BNS

   This training agenda states only that BNS should provide health education and then ensure understanding and compliance. All other items are either absent or vague.
5. FHSIS, Operation Timbang, Hearth monitoring forms for weight, Weight for age table, and Basic training course for BHWs (Ormoc and Leyte)

   These documents do not mention any recording or counseling skills.

Objective 2: Summary and recommendations

Of all the documents reviewed, the Growth Monitoring Cards provide the best guide to proper growth monitoring practices. It remains, however, an incomplete framework. None of the other documents offer any specificity on desired skills. It is valuable to note that the Philippines Department of Health states that a protocol on growth monitoring and nutrition has been written. The project attempted on several occasions to obtain this document. We were told in June 2002 that it was under revision and not yet completed. The original of this protocol was also unavailable. In the absence of the protocol, the project considered writing a more complete guideline on the practice of growth monitoring and counseling. As an alternative, the project decided to create a pictorial guide for health workers on growth monitoring and nutrition counseling.

OBJECTIVE 3: Review and document the current implementation of growth monitoring and Hearth nutrition program

Introduction

The purpose of the third objective, "to review and document the current implementation of growth monitoring and the Hearth nutrition program", was to measure the actual implementation of the specific practices outlined in the first and second objectives. We wished to examine how Hearth was actually conducted, as well as how it was experienced by the key players - the health volunteers (BHW, BNS), the mothers/ care givers and the village officials (Chairman and Kagawad, or Councilor)[9].

The first step in conducting this component of OR was to review documents that provide input into the Hearth and growth monitoring implementation (as compared to the first two objectives, which reviewed documents that might provide a framework or guideline).

The documents that we reviewed include the following:

1. Hearth Monthly Weight Monitoring Forms – these are the records of the weights of the Hearth participants taken monthly by the health volunteers. The baseline weights of the children are included as well as their corresponding nutritional status based on the Weight for Age index.
2. Growth Monitoring Cards (GMC)-The GMCs are the home based records for all children aged 0-5. It shows the weight of the child as well as his or her growth pattern. It is supposed to be updated on a monthly basis and brought to each growth monitoring session (as per Department of Health policy). Other information contained on the GMC includes the child's immunization status and health history.
3. Hearth Process Documentation- Contains information specific to the actual implementation of the Hearth process. This includes records of the PDI survey, wealth ranking, menu development, daily NERS records, and counseling records. It is meant to highlight how Hearth is actually implemented in all its phases.

Methodology

After reviewing the documents, questionnaires were developed and then conducted using either a Focus Group Discussion (FGD) or a Key Informant (KI) interview format. The team decided that these tools would provide the richest

[9] Kagawads are elected by the barangay every 3 years. They are members of the Barangay Council, which is the legislative body of the community. Their task is to represent the community in a specific sector, e.g. health or infrastructure (i.e., a representative.) The chairman is the leader of the Barangay Council, and the highest authority in the barangay.

qualitative information. Five barangays participated in both the FGD and KI interviews, including Sto. Nino, Lao, Patag, RM Tan and Lundag. The team decided that the mothers' responses would be most reliable, and offer the most depth, if they were interviewed individually using the KI. Similarly, the village officials might feel most comfortable interviewed separately. The health volunteers would be comfortable in a group setting, and their interaction might enhance the quality of the interview. The KI tool for mothers/ caregivers was designed to confirm validity of findings of the FGD.

Seventeen BHWs and four BNSs participated in the FGD. This tool was used to examine the following areas in Hearth implementation:

- The Hearth Process
- Involvement of the mothers in the NERS from the health volunteers' perspective
- Health education components being utilized
- Recording
- Counseling and follow-up

Ten mothers participated in the KI in the 5 communities. The mothers were grouped by either complete attendance or incomplete attendance in order to determine the correlation between attendance and positive behavior change. This tool was used to evoke the following things:

- Specific involvement and participation
- Learnings and practices derived out of their participation
- Developments in the child's weight/ physical change
- Behavioral changes of the mothers/ caregivers
- Benefits acquired from Hearth participation

In addition, 5 kagawads, or councilor, participated in the 5 communities. Three were kagawads for health, and 2 were kagawads for infrastructure. The purpose of interviewing the kagawads was to examine the support system within the barangay for Hearth. We believe that the strength of the support system determines the potential for sustainability.

Findings

In order to get a better context of the impact of Hearth implementation on the entire community, the research team analyzed and compared the findings from the three different research respondents - health volunteers, mothers/ care givers and village officials. The participants were questioned regarding the following 5 topics:

- Recall of the Hearth process
- Involvement/ participation of mothers

- Health education component
- Records and observations
- Counseling and follow-up done

Recall of the Hearth Process

Unsurprisingly, the health volunteers had the best recall of the overall Hearth process. They cited the events of the preparatory phase – orientation of mothers and officials, weighing, and the Positive Deviance process – as well as the implementation. The barangay officials had a strong recall of the mobilization activities.

When the mothers were asked why they decided to join Hearth, they stated that the realization that their child was underweight encouraged them to gain new knowledge on how to properly feed him/her. They were also willing to share experiences with the other mothers. Their recall of the NERS sessions was focused on the cooking and feeding component. Most mothers verbalized that their major learning was on how to properly prepare the right food for their children through cooking activities. Their recall of the health education and key practices components of NERS was limited to hand washing and hygiene. The differences in recall between the mothers with complete attendance and incomplete attendance was that the former group mentioned scheduling and hygiene more frequently. In addition, the mothers with complete attendance gave slightly more recent dates of the child's last weighing. The recall of scheduling does not appear significant, although the different emphasis on hygiene could be. It is unclear if the date of weighing is significant. Nonetheless, the similarities between the two groups of mothers and their minimal focus on health education or key practices strongly suggests that their home based practices would also be largely limited to cooking and feeding.

Records and Observations

The mothers were asked about the Growth Monitoring Cards, which they keep and are supposed to bring to each growth monitoring and immunization session. Most mothers brought these to the Key Informant interview. The children's weights were not routinely recorded in the cards – either from the Hearth sessions, the follow ups, or from most monthly growth monitoring sessions. This was especially true for children over 9 months old as there was a widespread misunderstanding among mothers as well as perhaps among BHWs that the cards are primarily a recording tool for immunization. The weights are reportedly recorded in the log book of the health volunteers.

During the interviews, the team observed weighings in each barangay. They noted the following practices, all of which relate to the review undertaken in the second objective:

- Weighing scale was not placed at eye level in most areas
- Weighing scale was not properly calibrated to 0 before each weighing
- Children's shoes are removed in most areas
- BHWs usually record the weight properly without rounding up
- BHWs usually don't explain the weight of the child to the mother
- Weights are not plotted in the GMC

The records primarily seen in the possession of the health volunteers were the Hearth monthly weight monitoring form and Hearth process documents which include information on the mothers' attendance and the menus used during the 12 day NERS. However, in a few instances the Hearth weight form was kept either by the midwife or project staff. This implies that in some circumstances community ownership of Hearth might be minimized. Most barangays had not kept any records of the PDI survey, the wealth ranking or counseling.

Involvement/ Participation of mothers

Each participant was asked how they perceived the role of the mothers. Both mothers and health volunteers stated that the primary role of the mothers during the 12 day NERS was to cook and feed the children. The health volunteers also noted that the mothers were responsible for maintaining the hygiene of the children (like hand washing and cutting of fingernails). Interestingly, the mothers did not readily cite this. The barangay officials meanwhile provided only a very broad description on the role of the mothers: "they take care of the children".

Health Education

The health volunteers said that they conducted health education during the NERS sessions using visual aids but there was no clear documentation of this. There were also no clear daily themes used. The health workers stated that the health education topics included prenatal care, immunization, breastfeeding, feeding skills including complementary feeding, growth monitoring, and backyard gardening (a project activity). The mothers remembered that there were lectures during the NERS, but some could not recall the specific subjects. They had a much better recall for practices that were demonstrated, such as food preparation and hand washing.

Counseling and Follow-up

Our interviews highlighted that home visitation follow ups were not conducted in most villages. Health volunteers did home visits with informal discussions in one barangay only. The monthly weighing session provided the primary opportunity for follow up. This focused on weights, with little educational counseling or support. The village officials didn't play a major role in conducting follow up activities, although occasionally they were present during meetings and monthly weighing sessions. The exception to this is the one barangay where home visits were conducted – the kagawad accompanied the health volunteer.

Objective 3: Summary and recommendations

The primary strength of Hearth implementation was the active community involvement. This participation, particularly the mobilization of mothers, made implementation possible. Although many mothers brought the Growth Monitoring Cards to health events, mothers with older children used the cards less. The most significant difference between mothers with consistent and inconsistent attendance was the recall of hygiene.

In most cases, community ownership of Hearth was high, contributing to the possibilities of sustainability and replication. The technical know how of the health volunteers made them less dependent on the professionals like the midwife and nurses. (This independence may be perceived as both a strength and weakness. The interviewed health workers requested that the midwives be more actively

involved.) The orientation activities – as well as the general support - provided by the health workers and the barangay officials enabled most mothers to understand the nature of Hearth, thereby facilitating their participation. Furthermore, the active nature of the Hearth sessions facilitates recall and assimilation. The use of indigenous food resources and knowledge based on the PDI was readily accepted by the mothers.

Despite these strengths, there were notable weaknesses in the Hearth framework. The most important was the lack of focus in the health education component. There were no clear daily themes and documentation was very weak. The mothers had poor memory of the topics presented in lecture format; hence it is recommended that health education sessions be more interactive and less didactic. One suggestion was to install a "mime" rule on the health education components – that is, if the message cannot be effectively put into a silent mime then it shouldn't be included. Follow-up support and home visitation by the health workers were also areas needing improvement. It could be insightful to conduct a positive deviance inquiry to determine why only one barangay provided follow up. The learnings would clarify how to encourage the other barangays to improve follow up. Home practice of hygiene behaviors also appeared weak. Since these weaknesses were not identified earlier by staff, it indicates that they were not thoroughly conducting supervision.

The village officials should also be involved at a deeper level. They could participate in the mobilization of mothers and more importantly in the follow-up visits. The respondents suggested greater involvement of fathers in health education. One possible method to encourage family involvement would be to organize an evening event – complete with a mini Hearth session – and invite the family members. As the health workers mentioned, a recording system should also be institutionalized in all of the activities. The existing Hearth weight monitoring forms should be kept and updated consistently. Forms to document follow up and counseling activities are needed. The respondents echoed recommendations to strengthen these key areas. They specifically recommended greater use of IEC materials.

In addition, our research highlighted weaknesses in growth monitoring. The weighing and counseling skills of the health workers were inconsistent, particularly in use of the scale and explaining the meaning of the weights to the caregivers. (These findings were also validated by a qualitative study undertaken in May 2002 in growth monitoring by a student at the University of Heidelberg, Germany.) The health workers should maximize the Growth Monitoring Cards by updating it regularly even if the child is more than 9 months old. The BHWs and BNSs should highlight its importance as a growth monitoring tool for the caregivers.

The respondents provided their recommendations for future implementations. Backyard gardens might enhance sustainability if they were better integrated with Hearth. Finally, respondents mentioned that 12 consecutive days is sometimes too long; they recommended shortening the duration of the NERS sessions, or perhaps spreading them out. Staff will meet with communities to review the Hearth "essentials" including the importance of the 12 day session.

OBJECTIVE 4: Uncover remaining barriers in current Hearth practices

Introduction

The fourth objective in the research study was "to test and uncover remaining barriers in current Hearth practices and modify the plan for the Hearth program if necessary". To achieve this objective, a review of documents was needed to determine what tools were suitable for the field visit. Next, the team identified respondents and developed the questionnaires required in the objective.

The health volunteers in the community were able to provide valuable information as they have more knowledge and have spent more time implementing this nutrition program. They were also able to identify the problems and barriers encountered. Caregivers experienced any barriers firsthand –such as struggling to bring food to each session - and were thus essential sources of information. Two health volunteers – I BHW and I BNS – were targeted in each barangay. Two caregivers – 1 each with complete and incomplete attendance – were also targeted per barangay.

Methodology

The Key Informant interview was selected as the most appropriate tool for both the health workers and caregivers, allowing them to express any problems and barriers encountered. Respondents preferred the one on one interview with the researcher. Control of the discussion by 1 or 2 dominant respondents in a Focus Group Discussion would also be avoided.

Documents Used

- Attendance records of the 12 day NERS in the 5 barangays with Hearth programs. Used to determine and compare data of the child's attendance and who brings the child to the NERS.
- Hearth weight monthly monitoring record. Used to determine the progress of the child per month with regard to nutritional status and any increases in weight.

Findings

Attendance

A total of 28 questions were asked of the respondents. The first group of questions was related to attendance. The first question that was asked of the health workers and caregivers was who brought the child to the NERS. Unsurprisingly, the mothers responded that they primarily brought the child, or when they were unavailable, the child's older sibling did. The health workers also cited that grandmothers and aunts, as well as mothers and siblings, brought the child. Secondly, respondents were asked if the children were able to complete the 12 day NERS, and if not, why? Both groups of respondents agreed that not all

children completed the 12 day sessions, although most did. The primary barriers were illness of the child, heavy rain, and distance to travel. One health worker and one caregiver stated that the mothers' absence from the house affected attendance (either for work or for errands).

Children's Progress

The second set of questions focused on the children's progress. There was uniform agreement that nearly all children gained weight, although there was more confusion about exactly how many did. The health workers agreed that 2-3 children in each barangay did not gain weight. One BHW stated that one child actually lost some weight. Two BHWs correlated lack of weight gain to the child being sick, and another two to negative behaviors on the part of the mother. Most of the health workers and mothers agreed that the children improved in nutritional status after the NERS, although 3 respondents said no. One mother said that her daughter's progress was limited because she refused to eat green leafy vegetables.

As with the number of children who gained weight, there was variation in the number of children who improved in nutritional status. Most BHWs agreed that 2-3 children did not improve in nutritional status, and this correlates to their responses of the number of children who did improve. In Lao, the BHW stated that one child had improved, but then slid back. In Lundag, there was a large discrepancy in the answers of the 2 health workers, where one said that 10 failed to improve, while the other said all improved[10]. Two of the health workers interviewed attributed the lack of improvement to maternal behavior. Most mothers stated that they knew of other children who improved their nutritional status, although it is clear that most did not consider Hearth an unequivocal success for all children.

Home Based practice

The fourth group of questions was specific to the home based practice of Hearth skills. The mothers strongly stated that they were able to maintain the behaviors practiced during the Hearth. Many provided examples of their new feeding practices, while a few mentioned hygiene practices. The health workers, however, were more hesitant, several stating that the practices didn't continue because the mothers go to work during the day and leave the children at home. There were, however, several health workers who were positive about the home based practices.

The purpose of the next question was to understand the greatest challenge to continuing the home based practices. The majority of mothers said there were no challenges, while 2 mentioned difficulties with some of the foods – either due to preparation or cost of purchasing. The most common challenge that the health workers mentioned was the mothers' work schedule. It is important to note that several respondents appeared to have misunderstood this question and thus their

[10] The weight records show that 3 children in Lao did backslide, but then improved again. The same is true for 2 children in Lundag. As there were 10 participant children in Lundag, it is likely that the health worker misunderstood the question.

responses cannot be considered. The final question of this set was about the support provided to families to continue at home. The responses indicate that follow up support was very limited, and that the informal mother to mother support may have been the most meaningful. The health workers primarily stated that they simply reminded the mothers to continue at home. Home visits were not specifically mentioned. Two responses were again discarded due to misunderstanding.

Food Contributions

The fifth group of questions focused on the food contributions that the mothers were expected to bring. The health workers stated that the mothers generally contributed their expected food for the day, although it was clear that some women were unable to contribute on some days. The health workers did not appear to stigmatize the mothers because of this. The health workers acknowledged that they also provided occasional contributions of either food or money. The mothers agreed that eggs were the most difficult food to bring. Noodles were the second most frequently mentioned food. These foods are expensive.

The mothers were asked what food they brought, and the answers varied from vegetables to starches to protein (eggs, seafood, and chicken). When the mothers were asked how they felt about bringing food, they stated overwhelmingly that they were pleased and proud with the group interaction as well as seeing the children eat so well. Certainly food contributions were eased because most foods could be gathered from the local gardens. Few items had to be purchased. Those items that did have to be bought (e.g. eggs) provoked more concern from the mothers, and some shame.

Maternal pattern of leaving the house

In the sixth group of questions, caregivers were asked about their patterns of going out of the house. Primarily, the researchers were interested in whether the mother brought the child with her when she went out. In the majority of cases, it appeared that the child was left at home, although the youngest child was sometimes taken along, especially when the mother wasn't going far. The grandmother was most frequently left in charge of the children. Fathers were also given responsibility, and lastly the aunt or uncle. The most frequent instructions that the mothers left the "babysitter" was simply to feed the child, put him or her down for a nap, and watch that the child did not play in dangerous areas. Many mothers said that they go out several times during the week, and are gone at least for 2-3 hours.

Impressions & recommendations

In the third group of questions, the respondents were asked their impressions of the Hearth sessions. Most participants thought that 12 days was an appropriate amount of time, although four said that 12 days was too long, and one said too

short. There was more agreement that the afternoon is the best time of day; two preferred just once to twice a week. When asked for how many days the NERS should continue, there was a wide range of responses, from 3 days to forever. Most of the mothers preferred 12 days or longer, while the health workers preferred shorter durations. All of the mothers expressed that they were comfortable with the current NERS schedule. When the mothers were asked to share their recommendations to ensure success for the children, they had very clear opinions. Most women focused on the importance of attendance – one suggested make-up days, another said that the menus should be given to mothers who have missed a day. One woman said that the Hearth should only be scheduled on weekends. Finally, the caregivers were asked to recall when the NERS session occurred. Many mothers had a difficult time recalling in which month Hearth occurred.

Objective 4: Summary and recommendations

Attendance at the Hearth sessions was generally high. Travels by the mother outside of the house did affect attendance, but was not among the most frequent causes of absences. It was clear that most children gained weight from the experience, although it was not clear that this consistently correlated with an improvement in nutritional status. A few children did apparently lose weight during the Hearth sessions or the follow up period. The reason for this is unknown and would be worth following up. Most of the children that lost weight , however, did regain it. (However, since it was demonstrated in the third objective that weighing practices were not consistently correct, we cannot state with confidence that this weight loss is valid.)

The continued practice of key behaviors at home cannot be determined. The mothers were more enthusiastic than the health workers that they maintain the practices at home. The health workers cannot verify this since follow up only happened in one community. There is evidence that cooking and feeding practices were more frequently replicated than hygiene practices, as mothers cited examples of the former more readily. Both food – either availability or preparation - and the mother's work schedule were barriers to home practice, although the mothers and the health workers were not in agreement on this. As noted, home visits by health workers were inconsistent. Perhaps for this reason, the informal mother-to-mother support was significant. Several responses to several questions had to be discarded due to misunderstanding.

Generally, food contributions were not a barrier. Nonetheless, it is recommended to minimize use of ingredients that cannot typically be gathered locally for free (such as eggs). Health workers also occasionally contributed food or money, which is not in the guidelines, and has potential implications for sustainability. It

would be worth determining how many health workers made contributions, and if it was completely voluntary, or if it was implicitly expected.

There was general – but not unanimous - satisfaction with the current 12 day schedule, although more health workers would prefer fewer days. Several respondents (mostly health workers) stated that 12 consecutive days was too long, and recommended meeting only about twice a week. Respondents were consistent in recommending holding the sessions in the afternoons.

Overall, it is clear that the health education and follow up components were weak. The consequence is that home practice of key behaviors was limited, which was likely further hindered by the weak home visit and follow up support. Rehabilitation of malnutrition depends on the families' abilities to maintain behavior change once the sessions have ended.

OBJECTIVE 5: Determine the Factors that Affect the Rehabilitation of Children

Introduction

The fifth objective of the study encompasses all matters that may influence the nutritional condition of the children during rehabilitation. The rehabilitation period covers the 12 day NERS up to the time the child is rehabilitated. The team defined "rehabilitated" as when a malnourished child achieved normal weight for his/her age. The number of months of the follow up period depends when Hearth was implemented in each barangay: RM Tan – 14 months, Lundag – 17 months, Sto. Niño – 24 months, Lao – 15 months and Patag – 13 months.

Methodology

Tool

The initial questions of interest defined our direction and focus in this objective. These in turn were incorporated into the tool that the team created to gather the data. The questions are the following:

- Did the health workers initiate health education? This focuses on the follow through by the health workers after the NERS. The purpose of the 5th objective was to test the assumption that the health workers do regular health education for the caregivers of the enrolled children. We believe that this effects rehabilitation.
- Is it more effective to rehabilitate children by Hearth or through a clinical institution (health center)? There is a need to distinguish between the effectiveness of Hearth and of the existing services in the health center.
- What is the source of income of the family? The purpose was to look into the financial capability of the family to acquire nutritious food other than the free Hearth foods identified during the PDI.
- What were the caring and health seeking practices of the caregivers after NERS? It is important to know if the Hearth practices are still being applied at home.
- Did the children receive micronutrient supplementation? What micronutrient supplements were available in the health center?
- Are there effects of low birth weight (LBW) babies on malnutrition? If a child was born LBW, will this delay rehabilitation?
- What are the roles of the community health volunteers, health practitioners, caregivers and barangay officials?
- Food sources: Availability of food for the child.
- Proper hygiene: What were the hygiene practices of the caregivers for their children, such as hand washing and bathing?

For each of three respondent groups, the researchers were interested in obtaining slightly different information, which affected the design of the tool. The key points of interest for each group are below:

Mothers/caregivers:

- Economic condition of the family
- Cost of rehabilitation for the family
- Health seeking behavior of the parents
- Food production or sources
- Micronutrient supplementation
- De-worming
- Hygiene
- Sanitation
- Health education received by the Hearth mothers/caregivers (after NERS)

Health workers:

- Follow up activities done by the health workers
- Roles and responsibilities of the health workers
- Home visits
- Access to health services
- Other existing nutrition programs

Health Professionals (RHMs, Nutritionist):

- Effects of low birth weight
- Health education conducted by the RHMs to the mothers/caregivers (after NERS)
- Micronutrient supplementation
- Availability of health services
- Other existing nutrition programs

In order to answer all the questions of interest, the group employed two methods, Key Informant Interviews (KI) and review of documents relevant to the rehabilitation of children. KI was utilized as a tool in gathering data because of the sensitivity of some of the questions. This enabled the respondents to express their thoughts spontaneously. The document reviews and data gathering were done in succession through field visits in Lundag, Lao, RM Tan, Patag, and Sto. Niño. Data gathered was substantiated with the existing records kept by the health workers in the area.

Documents used

To augment the data gathered from the field, the following documents were reviewed:

1. Hearth Nutrition Program Pre-pilot Qualitative Impact Assessment (Focus Group Discussion): This was conducted at Sto Nino on January 17, 2001, to determine behavior change (feeding, caring and health seeking practices) of

mothers/caregivers after the 12 day NERS. The pre-pilot was conducted in September 2000.

2. Monitoring and Assessment on the Hearth Nutrition Program, December 2001; Barangays Lao, Patag, RM Tan and Lundag, to determine behavior change in the feeding, caring and health seeking practices of mothers/caregivers. The tools used were FGD and KI.
3. "Developing Strategies to Promote Behavior Change" - Training Design on Hearth Program; written by project staff, (using 1997 Field Guide as a reference). This document presents schemes or ways to effect rehabilitation. This was used during the pre-pilot of the Hearth nutrition program in Sto. Niño.
4. Hearth Nutrition Program in Barangay Patag, a narrative update – August 2001.
5. Filled up weight monitoring forms by the health workers. These are the records of the weights of the Hearth participants taken monthly. The baseline weights of the children are included as well as their corresponding nutritional status on the weight for age index.
6. Monthly Accomplishment Reports of the CHDOs and CDC; documentations on home visit/follow ups and supervision conducted by CHDOs and CDC to the health worker. This is done on a regular basis.
7. Project Accomplishment Report - presented by the CSP staff during the Annual Assessment and Planning on September 2002. The accomplishments on Hearth for year 3 were presented to the partners during this activity.
8. Hearth Operations Research Report, August 2002 (objectives 1-4)
9. Logbook on Vitamin A and Iron Supplementation at the health center. Records the Vitamin A and ferrous sulfate distribution.

Summary of Respondents

There were three groups of respondents targeted: mothers/caregivers, health volunteers and RHMs assigned in the area. They all came from barangays where Hearth has been implemented. The investigators believed that the number of respondents per group could sufficiently represent the entire population of caregivers who participated in the Hearth program. There were 16 total respondents in Merida and Ormoc:

- 9 Hearth mothers or caregivers
- 5 BNS
- 4 BHWs
- 2 RHMs

Out of the 37 mothers (Ormoc and Merida) whose children have been enrolled in the Hearth program, 10 were targeted for interviews, or 2 mothers in each barangay. In each barangay, the team wanted to interview one woman whose

child was either rehabilitated or improved status, and another whose child showed no progress. However, in Lundag, RM Tan and Sto Niño, the team was unable to secure participation of all targeted caregivers. Several were in the fields on the original visit as well as during the return visit. Out of the 21 health workers (Ormoc and Merida), 10 were targeted for interview. There were two per barangay, 1 BHW and 1 BNS. Regarding the health professionals, the team's goal was to interview all of the 5 RHMs assigned in the Hearth areas and the 2 nutrition coordinators from Ormoc and Merida. However, not all midwives and nutritionists were available.

Findings

Document review

The purpose of the document review was to provide a reference and guide to activities conducted after the 12 day NERS. The team found that very few documents covered post NERS activities. Although health workers said they did home visits, follow up and health education sessions, they never recorded them. Available field documents were limited to attendance sheets, with no activity inputs. Documentation remains weak in this area.

KI- Mothers/Caregivers

- Economic condition

Most households have 3-10 persons, with an average of 6. Most of the family's livelihoods come from farming, mini variety store and "tuba" coco wine gathering. There was no specific question pertaining to their per capita income.

- Cost of rehabilitation

The foods commonly given to the children during rehabilitation were rice, milk, noodles, mixed vegetables, fruits, fish and egg. These foods are available in the barangay. The families readily accessed these foods because most of them cultivated their own backyard gardens. The same foods were identified in the Hearth menus developed during PDI. Other foods that were bought have varying costs. Most of the families interviewed spent 20 Philippines pesos daily for the child and 100 pesos daily for the whole family ($1 = 53p).

- Health seeking behavior of the mothers or caregivers

Most of the children enrolled in the Hearth nutrition program got sick during the rehabilitation period, with ARI or fever. Parents first administered herbal medicines like "atis" (a concoction of sugar apple leaves), because it is available in the area. When illness persisted, the parents usually sought medical consultation. One respondent resorted to self-medication for cough and fever.

- Food production or sources

The majority of the respondents have their own backyard garden planted with vegetables and fruit such as papaya, jackfruit, taro, cassava, eggplant, squash, horseradish, okra, string beans, cabbage, swamp cabbage, lemon grass, "alugbati" (a green leafy vegetable), onion, sweet potato leaves and garbanzos. One mother

doesn't have a garden. She usually asked for vegetables from her neighbor. The mothers claim that the vegetables and fruits in their gardens contain Vitamins A, C and E, although not all of the cited vegetables and fruits actually do. In addition, some of the vegetables mentioned are rich in iron, protein and carbohydrates.

- Micro nutrient supplementation

The mothers said that their children were given Vitamin A and ferrous, and this was verified with Barangay Health Center records or GMCs.

- De-worming

Eight out of 9 mothers said that their children were de-wormed during the rehabilitation period. Five mothers reported that their children discharged parasites. This was again verified with health center records.

- Hygiene

The mothers reported adequate hygiene behaviors. Eight mothers bathe their children everyday; one said it is not good to bathe her child on Fridays. The mothers reported that they wash their hands as well as the food during preparation, before and after eating and after using the toilet. They said they wash their children's hands before and after eating. This practice was not observed during the interview. The mothers did not articulate tooth brushing.

- Sanitation

The team asked about the sanitation conditions of the households. The common sources of drinking water were from the spring, communal faucet and water pump. Two respondents used a deep well. The water is potable and was checked by the Rural Sanitary Inspector. Half of the mothers interviewed stated that they have their own toilets, while others just dug holes in their backyard. One mother expressed that her child is afraid of defecating in the toilet.

- Health education and counseling

The BHWs, BNS and RHMs conducted health education to the mothers. They focused on the following topics: hand washing, proper cooking of food, regular growth monitoring of children, sanitation and proper feeding. The caregivers had the best understanding of monthly weight monitoring, feeding the child with the Hearth foods, giving extra food and cooking variety of foods. However, the mothers claimed to have applied only proper feeding of the child at home. Three mothers reported that the health workers did not use visual aids or materials for health education. Counseling was at growth monitoring sessions.

<u>KI – Health Workers</u>

- Follow up activities

Health workers conducted health education, promotion of backyard food production, weighing and home visits. The messages imparted to the Hearth participants were about the importance of complementary feeding, prenatal exams, immunization, food preparation, sanitation and hygiene, hand washing, importance of breastfeeding and coaching on Bio-Intensive Gardening. Health workers said

that they conducted health education via counseling, informal discussion, home visits, and lectures at the HNP and during EPI. They primarily used flip charts, IEC kits, counseling cards, health calendars and BCLP manuals to conduct health education. One health worker did not use any material at all.

- Roles and responsibilities of the health workers

Health workers claimed that they assumed many different roles and responsibilities during the Hearth implementation. They organized and guided the Hearth mothers, gave lectures during health education, and monitored the weights of the children. During the actual NERS sessions, they acted as facilitator, helped in preparing the menu, supervised mothers during food preparation and documented the process. The CHDOs verified all of this information.

- Roles of the barangay officials

All Barangay officials in the Hearth areas participated in the orientation on Hearth which the CHDOs conducted prior to its implementation. Barangay officials in Lundag volunteered to support the transportation of the Hearth participants. They provided 10 pesos for motorcycle fare for 3 participants each day for 12 days (360 pesos, or $6.80). The others just informed the mothers to attend Hearth, prepared the venue, attended during NERS and initiated gardening. Two kagawads for health helped to facilitate health education during NERS.

- Home visits and its record

Five out of nine health workers reported that they conducted a home visit. The caregivers reported that the activities during the home visit were limited to weighing the children, and a brief reminder to continue Hearth at home by cooking and feeding the child with the Hearth foods, giving the right amount of food and submitting to regular weighing. Vitamin A is given twice a year. The health workers said that during these visits they weighed the children and informed the caregivers of that weight, observed Hearth mothers during meal preparation, and reminded them of the good practices learned during NERS. Of the five BHWs that conducted home visits, only one recorded them in a diary. All other records are limited to the child's weight.

- Access to health services

There are several services available in the health center, including distribution of ferrous sulfate, fresh milk, and nutripack. Nutripack is a food supplement containing milk, rice, monggo bean, oil and sugar. Children that are 2nd and 3rd degree malnourished received priority for distribution of the iron and feeding supplements. Health education and weighing are also conducted. All services are available to the children enrolled in Hearth. All malnourished children are scheduled to visit the health center every month for their regular weight monitoring and supply of vitamin A. In cases where mothers failed to go to the health center, health workers are supposed to conduct home visits to weigh and give the iron supplement. One health worker said that in her area, not all of the Hearth children received the iron supplementation. Milk and Nutripacks were given to malnourished children only when there were available supplies;

Nutripack was last distributed in 2001. The recipients are not known. Six health workers said that there is no other nutrition program existing in the area.

- Other nutrition programs

Seven health workers said that the Hearth nutrition program is more sustainable than other feeding programs where supplies can be cut off. They stated the following advantages of Hearth:

  - Health education component
  - Utilizes free ingredients
  - Provided additional information on how to take care of the children
  - Increased the weights of the children
  - Mothers learned by doing
  - Improve consciousness of the mothers towards hygiene
  - The mothers were clarified of their misconception of not giving vegetables to their children because it might cause indigestion
  - Can be done everyday.

Two respondents said that Hearth has no advantage over the other feeding programs because the children's weights increased in both programs.

Finally, the health workers noted other factors that they believe may affect the children's rehabilitation:

  - Parents' laziness in preparing food for the child
  - Low income
  - Mothers' participation during NERS
  - Health workers' knowledge
  - Mothers' attitude
  - Mothers' caring practices
  - No support from the barangay officials
  - Illness
  - Hygiene
  - Sanitation
  - Cooperation of the caregivers

KI – 2 Health Professionals

- Effects of low birth weight (LBW) babies

Normal birth weight is 5.5 to 6 lbs (2500 to 3500 grams). The midwives believed that LBW babies might be at risk for future malnutrition. One respondent said that she considers LBW babies malnourished, but believes they can be rehabilitated. However, LBW babies may have reduced chances of rehabilitation because they are susceptible to infections and other health problems. These increased risk factors may be compounded by inadequate food intake due to low economic status; the mother's feeding practices and quality of food given to the child.

- Health education

Two RHMs said that although health education is conducted during the rehabilitation period it is irregular. The mothers are primarily cautioned about proper feeding practices, hand washing and prenatal care. Hearth mothers receive the information either in small group discussion or individual counseling.

- Effects of micronutrient supplementation

The midwives stated that the primary purposes of micronutrients such as vitamin A and iron are to enhance the appetite of the child and to improve resistance against infection. They did not mention improving eyesight or anemia. There was regular supply of these micronutrients in the health center. Ferrous is given every month and Vitamin A is every 6 months.

- Access to health services

Services offered in the health center include: weight monitoring, vitamin supplementation (vitamin A and iron), check up of nutritional status, health education and Nutrisyon Para sa Masa Program. This was a short lived nutrition program implemented by DOH in 2001 which occurred as funding from other agencies was available. This health center based program provided daily supplemental feeding for two weeks for malnourished children. Nutripack is another supplemental feeding program, with sporadic but ongoing funding from the LGU. All malnourished children are scheduled to visit every month at the health center for their regular weight monitoring and supply of Ferrous. In cases where mothers failed to go to the health center, health workers are to conduct home visits to ensure that the target recipients receive all the available services.

- Other nutrition programs

The other nutrition program identified was distribution of Nutripacks. Mothers with their malnourished children are gathered by the health workers at the health center. The Health Workers distribute Nutripacks to the caregivers, who in turn prepare the food and feed their children at home.

Objective 5: Summary and Recommendations

Follow up remains the weakest component of Hearth. It is very important to strengthen the home visits and health education sessions for Hearth mothers/caregivers. We recommend that the project develop a checklist or guide for the health workers to utilize during home visits and counseling. This checklist

should incorporate all the activities to be done in each visit or counseling session. It should be based on the Hearth practices specific to each barangay that surfaced from the PDI. This would also serve as their documentation in every home visit they conducted. Topics during health education should always include the caring, feeding, and health seeking practices from the PDI.

Furthermore, we recommend that the RHMs conduct periodic supervision of the health workers during home visits in order to see if home visits are properly done. Finally, monthly weight monitoring must be maintained. The growth pattern of the child must be explained to the parents/caregivers. It would also be helpful for the health workers to explain the use of GMCs, so that the mothers are able to refer to the cards to help them understand their children's nutritional status.

OBJECTIVE 6: Determine capability of community, LGU and family to support the scale-up of Hearth implementation

Introduction

The study attempts to determine the capability of the LGUs, communities and families to support the scale-up of Hearth nutrition program in target areas. The study further identifies roles of personnel involved in Hearth at the respective pilot barangays.

Methodology

The research utilized qualitative methods in data gathering, including key informant interview (KI) and focus group discussion (FGD). Focus group discussions were applied at the community level, targeting the council members. The purpose of these discussions was to determine the council members' willingness and consensus for Hearth implementation in their respective barangays. The key informant interviews were designed to capture individual experiences and opinions of caregivers and professionals on the actual implementation. Caregivers/mothers were selected from 20% of the target families in each barangay. Of these, half were caregivers whose child was totally rehabilitated and the other half had a child still in the process of recovering. All midwives in-charge of the pilot barangays were interviewed. Below is the summary.

Informant	Methodology
5 Rural Health Midwives (RHM)	KI
1 Health Officer	KI
1 Nutrition Officer	KI
9 Caregivers/Mothers	KI
Barangay Council and Health Volunteers of Patag	FGD
Barangay Council and Health Volunteers of Sto. Niño	FGD
Barangay Council and Health Volunteers of Lao	FGD
Barangay Council and Health Volunteers of Lundag	FGD

Limitation

The Barangay council of RM Tan was not included in the focus group discussions despite the effort of the CHDO to convene them. Most of the council members were working outside the Barangay.

Findings

KI with Mothers/Caregivers

The mothers in the pilot communities contributed ingredients during the NERS. They were responsible for the complete preparation of food, from cleaning to cooking to serving it to the children. After NERS, the caregivers noted some slight positive physical changes among the enrolled children such as an increase in weight and liveliness.

The researchers noted during the interviews (as in objective 7) that the acceptance level of the caregivers towards Hearth is relatively high. They are even inclined toward replicating the program (see Summary and Recommendation of Objective 7, page 38.) The caregivers claimed that Hearth had a good impact on their children. They emphasized the importance of health worker support. Health worker support was focused on menu development and organizing mothers. The caregivers noted that the cadre of volunteer health workers was the primary support system. They led in initiating Hearth nutrition and assisted in food preparation during NERS. Some caregivers also said that the barangay officials helped pay for transportation. (Only one barangay - Lundag - provided transportation assistance.) Some mothers claimed that Hearth was not well understood by some barangay officials. They based their opinion on the level of participation of some council members. Council members mainly relied on the health workers to implement the activity.

FGD with BHW, BNS and Barangay Officials

The health workers and barangay officials all provided important support to Hearth. Information dissemination played an important role in remote communities. Most barangay officials, particularly the Kagawad for health, were involved in this, while the health volunteers assisted with the actual implementation.

As observed by those directly involved in Hearth implementation in the barangay, the typical barrier was the distant residency of some target families. Often it caused low attendance during NERS. To persuade these families, 1 out of 5 pilot barangays provided minimal transportation allowance with funds obtained from the personal budget of the barangay officials. All the barangays provided an honorarium to volunteer health workers which encouraged them to extend voluntary assistance to the community. In addition, the council members personally provided snacks for Hearth volunteers during NERS.

All the barangay officials and health volunteers in the piloted areas agreed that scaling-up Hearth was important. However, some barangay officials would benefit from a refresher course on the Hearth nutrition program to fully appreciate the

program. In addition, the officials and health workers should advocate for backyard vegetable gardens as a means to enhance available food sources.

KI with Midwives

The midwives stated that their primary role was to inform the barangay council about the activities. The health workers also assisted with this. The midwives often visited the area of Hearth implementation and supervised the Hearth volunteers during NERS. They also encouraged the mothers/caregivers to participate in the activity.

The midwives discussed the benefits and drawbacks of Hearth. According to the midwives, Hearth promotes self-sustaining nutrition activities that complement the nutrition program of the LGU. Weight monitoring, using the form provided by the project, facilitates in the implementation of the program. Health education is also complementary.

The primary constraints identified by the midwives were the inconsistency of attendance during the 12 day NERS and the conflicting schedules of the Hearth volunteers. The latter was resolved with proper scheduling of activities. The former was seen to be dependent on the commitment of the mothers/caregivers concerned. According to the midwives, lack of transportation often caused poor attendance and discouraged participation of other mothers. On the other hand, other caregivers who stayed nearby the NERS venue didn't consistently attend the activity due to other priorities. But neighbors declared that they're just doing things less important than taking care of their children. The implementers said it was caused by the indolence of the caregivers resulting in poor attendance during NERS. To counteract these issues, constant motivation to participants was initiated by the midwives.

Although it was agreed that NERS would be conducted in clusters, there were still children far from the NERS venue; the midwives said these children should be targeted. The midwives' ability to motivate the mothers/caregivers to enroll their children in the program despite the distance is implicit on improving the children's health condition. In addition to the above constraints, failure of some caregivers to contribute ingredients (during NERS) made them feel shy to join the group. However, the midwives asserted that the caregivers that had enough shared it with others. This helped maintain the enthusiasm. The midwives liked that the mothers could gain supplemental knowledge and optimize indigenous resources while improving their children's health.

Improvements in children's weights and support of some caregivers were also evident in the course of Hearth implementation. Given this, the midwives agreed that the expansion of Hearth to other malnourished children in the community or

even to other barangays with prevalent malnutrition was important. They insisted that there are important considerations, such as involvement from the barangay and caregivers regarding logistics. In order to maximize their participation, caregivers should understand their function in Hearth. In addition, the health volunteers and midwife in-charge needs to be supportive, and financial support from the LGU is important. The midwives reinforced that a high prevalence of malnutrition must remain the ultimate basis of the program. The midwives stated that the support they are prepared to provide includes monthly weight monitoring, health education to mothers, and a vehicle for transportation and supervision.

KI with Health Officer

The basic role of the health officers at the City Health Office (CHO) is to supervise their midwives who deliver the basic health services from the LGU to the Barangay. The implementation of Hearth is at the discretion of the midwife in-charge, although the health officer will conduct visits at the implementation site.

According to the health officer, Hearth complemented the nutrition program of LGU since there were improvements of the target Hearth participants. Realizing consistent attendance of mothers/caregivers was difficult. However, the midwives assigned in the area can assist in motivating the mothers or caregivers to attend. She can do this within her current activities of community rounds, and interaction with families, leaders and barangay officials.

The health officers recommended expanding Hearth to other malnourished children. They said that Hearth implementation brought a positive impact particularly on the children's weights. At the CHO level, some of their personnel (PHN and RHM) are already knowledgeable about Hearth. They could utilize trained personnel, health volunteers and mothers/caregivers to train mother volunteers in other puroks in order to reach other children in their barangays. These resource people could later be tapped to train health workers in nearby barangays.

Objective 6: Summary and Recommendations

The capacities to support scale-up of Hearth implementation by project partners, whether at the level of LGUs, communities, or families are already available. At the level of LGUs, the decision to scale-up or incorporate Hearth in their regular nutrition program depends on the highest officials responsible. The project needs to lobby these officials so that they understand and support the basic principles of Hearth. With their willingness to support the program, opportunity for scaling up would be guaranteed.

The decision of the barangay to initiate activities is usually dependent on what is demanded from the top. As long as the Hearth project earns full support from the

LGU level, then implementation at the community level would be highly supported by the midwives. Hearth is highly appreciated by most mothers/caregivers since the basic idea is just tapping indigenous resources in the community using the practices of PD families. The only prerequisite is to advocate the benefits of the technology to the caregivers and communities. The midwives, as the front lines of the LGUs, would play an important role in this.

Ultimately, Hearth nutrition programs' actual application depends on the concerned families. Success is measured at their level. But their acquisition of knowledge is dependent on the implementer. The acceptance by most target families determines the commitment to sustain Hearth nutrition program at home. Cooperation among mothers/caregivers would be more enhanced if they could receive regular health education and follow-up. In addition, health workers should make it clear to caregivers that they should always come to the NERS session, even if they can only contribute water or cooking pots. Moreover, home visits by health volunteers must be routine follow up for target families to encourage that they actually practice of Hearth behaviors in their respective households.

OBJECTIVE 7: Factors in Replication

Introduction

The objective of the study was to uncover factors that would affect the replication of the Hearth intervention even after the end of the project. This objective is crucial since it looks at the feasibility of sustaining Hearth from the perspective of the community and the implementers. Questions were designed to gain valuable insights on the experience of the actual implementation. These insights would in turn serve as the basis for determining strategy to ensure effective implementation of Hearth at the end of the project period.

Methodology

Two research methodologies were utilized to determine factors necessary for replication - KI and FGD. FGDs were utilized with the community implementers, that is, the Barangay Health Workers, the Barangay Nutrition Scholars, and the Barangay Officials. FGD could capture the overall picture because of the interaction among respondents. The Key Informant Interviews were designed to get valuable inputs from the LGU implementers, including the RHMs and the Health Officers from both Ormoc and Merida.

Summary of Research Respondents

The selection of study respondents was done purposively; participants came from the community and the LGU (either the City Health Office of Ormoc or Merida Rural Health Unit). The respondents include the following:

Key Informant Interviews	5 RHMs 1 Health Officer 1 Nutrition Officer
Focused Group Discussion	Patag Barangay Council and Health Volunteers Sto Nino Barangay Council and Health Volunteers Lao Barangay Council and Health Volunteers Lundag Barangay Council and Health Volunteers

Findings

All respondents were asked the same range of questions:

- Advantages of Hearth
- Disadvantages of Hearth
- The difficulties encountered
- Contributing factors for success of implementation

- Need for replication
- Support needed
- Conditions that would ensure sustainability of replication

The respondents were unanimous in pointing out the need to replicate Hearth in other areas even after the close of the PHCSPs. They agreed that the high prevalence of malnutrition is the most important factor. The said that Hearth is an empowering process as it is less dependent on external resources. The RHMs viewed Hearth as a self- help activity that attempts to diffuse the dole-out mentality. The barangay officials and health volunteers pointed out that its easy applicability was a definite advantage. They all agreed that these characteristics, coupled with the health education component, make Hearth an effective tool for community mobilization. The LGU Health officers further pointed out that Hearth complemented the LGUs' overall program for nutrition, which encouraged self reliance through the utilization of local resources.

However, to have a truly effective replication of Hearth, some conditions need to be considered. According to the barangay officials and health volunteers, one major challenge has been insuring maximum participation of the community members and barangay officials. This can only be achieved with adequate social preparation done through information drives as well as effective negotiation with the Hearth participants. Several respondents expressed concern about the time commitment required, both for the caregivers and the community health workers. Adequate preparation might help reduce this problem. In addition, the midwives pointed out that replicating Hearth should be carefully planned. This should entail careful consideration of possible problems and difficulties and at the same time formulating possible options. Related to this, the midwives recommended that the barangays financially support Hearth by providing transportation to the health workers. The LGU Health officers recommended that lessons from the pilot implementation be culled out through a program review or a small study.

As a final note, the barangay officials, doctors and nurses all recommended that they receive a reorientation so that they can participate more effectively in the implementation or provide better supervision to those more directly involved in implementation. The barangay officials and health workers would also benefit from having reference materials on Hearth. The RHMs also verbalized their need for additional knowledge on Hearth to make them better supervisors of the community volunteers, particularly in such aspects as monitoring and evaluation.

Objective 7: Summary and Recommendations

The respondents were unified in their support of Hearth, and their belief that it should be expanded to new children in the same communities and to new communities – even after the Partners for Health Child Survival Project

terminates. At the same time, they were honest with the challenges they have encountered and how they feel the implementation can be improved. The authors largely agree with their recommendations, especially with the need for reorientation to all parties involved in implementation – the health workers, barangay officials, midwives, doctors and nurses. The LGU health officers felt that the project should conduct a study of Hearth implementation, which is what this operations research has been. The lessons learned and recommendations gathered in the process of this operations research must be shared with all partners.

Complete Summary and recommendations

This operations research has illuminated several important strengths and weaknesses. The most important of the strengths is undoubtedly the community involvement. The health workers were independent in their ability to implement Hearth, and to generate support from the community leaders, mothers, and family members. We applaud the strengths of the health workers. At the same time, we believe that greater involvement from other community members, midwives, nurses and doctors will help guarantee the current and future successes.

Our research demonstrated that the health workers' skills in growth monitoring, weighing and counseling were not consistent. In addition, most health workers did not provide sufficient follow up to participant families. We believe that enhanced follow up will reinforce positive behavior change on the part of the caregivers. We recommend that health workers be offered a refresher training to focus on these skills. At this training, they should be presented with a clear, complete guideline on Hearth implementation – including follow up - written in their dialect. If a refresher training isn't feasible, the staff should meet with community health workers to review the Hearth "essentials" including the necessity of the 12 day session and the theory behind 21 day behavior change. A similar orientation emphasizing the value of Hearth and the essential components essential would be extremely valuable for other barangay members, midwives and health officials.

An important issue that remains difficult to completely solve is that of the mothers' need to work during the day, leaving the children in the care of family members. Greater involvement of fathers and grandmothers would encourage them to continue the positive feeding and hygiene behaviors while the mothers are gone. In addition, the project should help determine an appropriate snack food that these "babysitters" could give the children. This snack food should be the equivalent of peanut butter in the United States – high calorie, high protein, non perishable and easy to serve.

While this study was not intended to measure impact, it does have several limitations, which may have affected the findings. Firstly, the questions were not pre-tested, which was likely an issue as several respondents apparently misunderstood several questions. Their responses were never clarified and not included. The researchers did not consistently practice probing follow up questions. Furthermore, the sample size of some objectives was reduced because the targeted participants could not be found. Finally, the document review tools may have been unfairly rigorous. All documents in a certain objective were judged against the same standard, even though the documents did not all have the same purpose and would not logically be expected to include all the components of the tool.

In sum, this Operations Research study was extremely helpful to the project, as well as, we hope, to the partners. This study has illuminated the strengths and weaknesses of Hearth implementation, and will allow the project and partners to improve it. In turn, we expect that the mothers' success with increasing the health of their children will increase, as will the long term sustainability of the initiative.

Annexes for Objective 3

Annex A: FGD Questions with Health Volunteers

1. The Hearth Process
   - What did you remember about the Hearth Program?
   - Can you narrate how Hearth was implemented (the process)?
2. Records in Hearth Implementation
   - Do you have any records about Hearth implementation? Can I see it?
   - Do you have any records of the weight of the children who participated in the Hearth program?
   - Do the mothers bring the GMCs during the weighing sessions? Was the weight plotted in the cards? Who plotted it?
   - Can you demonstrate how the babies are weighed?
3. Involvement of mothers
   - How many caregivers or mothers were able to participate in the NERS in your area?
   - What did you do to convince the mothers/caregivers to participate in the Hearth activity? What information did you share with them?
   - How did the mothers participate in the daily NERS activities? What were their specific activities?
   - What guidance did the health workers afford to the mothers/caregivers?
   - Can you narrate how the caregivers/mothers participated in the NERS?
4. Health Education Component
   - Did you do any form of health education to the caregivers/mothers during the NERS? How did you do this? When did you do this?
   - What were the lessons that you shared with the mothers?
   - What did you do to make sure that caregivers/mothers learned the lessons from your health education?
   - Did you have any records about the health education that you were able to conduct during the NERS?
5. Counseling/Follow up
   - Did you conduct any follow up activities to the children who participated in the Hearth?
   - How many times were you able to conduct follow up activities? When did you conduct the follow up activities?
   - Did you conduct counseling activities? How did you conduct the counseling activities?
   - Do you have any records of the counseling activities? Can I see it?
   - In your opinion, how can hearth implementation be improved in your area?

Annex B: FGD Findings from Health Volunteers

1. The Hearth Process

- Recall of the Hearth Process

- information dissemination to mothers and barangay officials through orientation
- weighing of children 6-36 months old
- identifying malnourished children
- Organized the mothers. Some selected mother leaders to help health volunteers mobilize mothers
- survey of PD mothers
- survey of mothers/ with malnourished children
- menu development by measuring caloric needs of children
- writing the menu
- selection of Hearth area
- scheduling of NERS
- actual conduct of 12 day NERS

- Records in Hearth Implementation

  Sto. Nino
  - Hearth monitoring form that consists of records of the 12 day NERS (attendance, name of the children, date of birth of Hearth participants)
  - Daily menu

  Lao
  - Hearth menus
  - Scheduling of BHWs/ BNSs monitoring the 12 day NERS
  - NERS attendance
  - Quantity of food intake of the Hearth participants during the 1st round
  - List of foods prepared during the 12 day NERS (menu)
  - Attendance of mothers (1st round)
  - Weights of children during 2nd round (no nutritional status)

  RM Tan
  - attendance of mothers
  - monthly weights of children
  - menu
  - signature of mothers followed up

  Patag
  - Attendance of mothers and Hearth participants
  - Monthly weights of children

  Lundag
  - Menu
  - Attendance sheet for the 12 days
  - Brief daily diary of what transpired during the 12 days NERS

2. Involvement of mothers from the health volunteers perspective

- Number of Hearth participants
  - Lundag 10
  - Patag 7
  - RM Tan 9
  - Lao 9
  - Sto Nino 9

- How are mothers convinced to participate in Hearth?
  - mothers were carefully informed about Hearth
  - orientation on Hearth made clear
  - benefits were explained
  - mothers informed that their children are underweight and that Hearth can help them improve their weight
  - constant follow-up
  - the use of free foods/ indigenous foods
  - mothers made to select NERS schedule

- Participation of Caregivers/ mothers during NERS
  - mothers washed ingredients before cooking
  - mothers cooked food based on menu developed
  - contribute foods
  - provide hygiene to children (cutting of fingernails, washing of children's hands before eating/ feeding)
  - those not involved with cooking look after the children
  - directly feed the children
  - listened to health education conducted by the health volunteers
  - however, in some barangays, no specific tasks and roles were assigned to mothers

- Kind of guidance offered to the mothers by the health volunteers
  - encouraged mothers to do backyard gardening
  - tasking of responsibilities
  - teach mothers how to cook
  - remind mothers to wash hands of children
  - supervise mothers regarding cooking and cleaning the hands of the children before feeding session

3. Health Education Component

- Conduct of health education
  - in all barangays, health volunteers said that health education was conducted

- health education was conducted before feeding session
- topics included in health education were breastfeeding, immunization, importance of prenatal activities, complimentary food mix, growth monitoring, caring practices, correct feeding practices, and backyard gardening
- no lesson planning was done
- visual aids were used
- no clear daily themes
- most barangays have no documentation of the health education conducted

- Methods used to insure learning
  - delivering the messages slowly and clearly
  - asked questions to mothers after every discussion
  - encouraged mothers to asked questions for clarification
  - follow-up was done monthly by weighing the children
  - health volunteers in some areas claimed that home visits were conducted to check if mothers are actually practicing what they learned during the Hearth

- Records of Health Education
  - no documentation
  - 1 barangay has an attendance sheet

4. Records/ Documentation reviewed

- Presence of monthly weight monitoring record for the Hearth Participants
  - most have available weight monitoring records
  - others are with the supervisors (e.g. midwives, project staff)

- Growth Monitoring Cards
  - in most areas, weights were not plotted on the GMCs specially with children aged more than 9 months
  - weights are only being listed in the monthly weight monitoring forms as well as BNS logs

- How weighing is done
  - in most areas, weighing scale was not placed at eye level
  - in most areas, weighing scale was not properly calibrated
  - in most areas, weights were not plotted in the GMCs
  - most areas remove the shoes and 1 barangay has the BNS remove the extra clothing of the children before weighing
  - in most areas, weights were not rounded up

- in most areas, health volunteers don't explain the child's weight to the mother

5. Counseling

- Follow-ups
  - in most barangays, health volunteers didn't conduct home visitation
  - follow ups are only done during monthly weighing session by the health volunteers

- How conducted
  - informal discussion
  - monthly weight monitoring by the health volunteers
  - One barangay reported home visitation using counseling cards but has no documentation of the interaction except for the signature of mother

- When conducted
  - no fixed and definite schedule of home visits and follow ups
  - In most areas, no counseling was done. Health volunteers claimed that counseling was only conducted during the 12 day NERS sessions

- Suggestions for the improvement of Hearth Program
  - emphasize the importance of conducting health education and counseling
  - also involve the fathers for health education
  - records and documentation of the activity should be made
  - use of available IEC materials during the health education
  - shorter period (one week)
  - involve the RHM in the activity

Annex C: Key Interview with Barangay Officials (Questions & Findings)

- Understanding about Hearth
  - The Barangay Official said Hearth is giving benefits to the children, such as supplements; he did not specify what the benefits are
  - It provided additional know-how and skills on how to care for the child
  - Hearth is cooking together with mothers
  - It is also about feeding not just for a day but for 12 days; each Hearth day, there is someone who will observe the mothers
  - Conduct of weighing so that the child becomes healthy
  - Barangay Officials share small contributions for cooking the food

- What was remembered about activities done in implementing Hearth?
  - Feeding the children with porridge and various vegetables

- Mothers brought vegetables
- Taught mothers to understand what Hearth is all about
- Encouraged the mothers to join the Hearth.
- Weighing of children
- Cooking various food everyday, cleaning the vegetables, cleaning the place, washing the hands
- Teaching mothers to provide balanced food to the children
- Teaching mothers not to feed children with junk foods; encouraging them to plant vegetables or herbs in the surroundings; that what can be eaten is just within the surroundings; one doesn't have to spend more to feed the child
- Don't Know (1 respondent)

- Participation in the implementation of Hearth
  - Attended meeting with health workers
  - Invited mothers to join the 12 day Hearth and continue what they learned from it
  - Let mothers know if there are meetings
  - Assess the children's status or monitor if there are improvements in the child
  - Gave support during the entire NERS even if not directly implementing

- Role in health activities in the barangay
  - Inviting residents to participate in health activities - encourage them to establish their gardens, construct their toilets, plant vegetables, clean the surroundings so that the children don't get sick
  - Help in implementing activities which are good for the health
  - Monitor if the children have improved or are healthy
  - Assist in implementing programs like Balik-Patak and Garantisadong Pambata

- In your own view, what activities were conducted by the mothers during the Hearth? Is it enough or not?

HEARTH ACTIVITIES	ENOUGH OR NOT?
Taking Care of the Child	Not enough
It was good, we saw changes in the weights of the child; mothers will now join health activities	Not enough yet; continue Hearth while there are still malnourished children
Activities conducted improve the weights of the children	There are only a few more malnourished, continue Hearth for the 1st degree malnourished children

Good! It helped the mothers to know ways on how to better take care of the children	Just enough for now; however it is even better if there is more that the mothers can learn

- Did you have a role in the follow up of children as a barangay official? What?
  - None - 2 Barangay Officials gave this response
  - Yes, I have a role in the follow-up. I always join the monthly meetings.
  - Yes. House to house to the mothers. Encourage mothers to continue feeding extra foods to the children even after the NERS.
  - I didn't have. It's actually the health workers who do follow-ups. I only inform the mothers in my purok of their attendance.

- What can you suggest as a barangay official to better implement Hearth?
  - Health Education and information dissemination about Hearth
  - Continue its implementation. I also suggest that the mothers plant vegetables within their surroundings to spend less.
  - It is necessary that the BHW and BNS provide follow-up
  - To provide support in all activities
  - Encourage mothers to provide proper care for their children
  - Encourage mothers with malnourished children to join the Hearth

Annex D: Key Interview of Mothers/Caregivers (Complete Attendance and Incomplete Attendance)

- What can you remember about Hearth? Can you recall the activities that you did during the Hearth?

With Complete Attendance	With Incomplete Attendance
Cooking	Cooking and feeding
Feeding the children	Each one brought vegetables
We were taught how to clean the hands before eating	Weighing of children
The children were weighed after they were fed	Cleaning and cooking vegetables
We brought vegetables everyday for cooking	At first, we cooked champorado (sweet rice with coconut milk)
Mothers had meetings	Gather the mothers for cooking
Scheduled to start cooking on Sat.	We have classes for the mothers

- Reasons for joining Hearth program?

With Complete Attendance	With Incomplete Attendance
To know what should be done to properly feed my child	I like it because my child eats slow
Because my child's weight is low	So my child's weight will increase.
My child's weight is low; I joined to increase his weight .	To know what foods my child needs including protein and vitamins.
I was included by the Barangay Health Worker	I liked to join so that we can get together; I was invited by the BHW.
I got interested to join so that the mothers can get together	To understand how to take care of my child.

- What have you learned during Hearth? In what way did you learn these things?

With Complete Attendance	With Incomplete Attendance
I learned about taking care of my child and proper cleaning via constant reminders from the health workers	I learned about cooking and feeding the child.
Proper food preparation	Proper food preparation
We were taught how to cook the food but we were the ones who did the cooking	Cooking nutritious food; the BHWs & BNS taught us, though we were the ones who cooked the food.

- What learnings have you applied at home?

With Complete Attendance	With Incomplete Attendance
How to cook vegetables like squash, malunggay (a green leafy vegetable); also about cleaning and washing the child	Cooking nutritious food like vegetables
I am able to cook vegetables now where before I don't cook it; cleaning the child.	Cooking meatballs and water spinach (kangkong) and feeding these to my child
What was not cooked during the Hearth, we cooked it at home	Cleaning the ingredients to be cooked and fed to the child.
I cooked vegetables for dinner; clean the children; clean the vegetables before cooking.	Cooking the menus developed during the Hearth like monggo bean with coconut milk, binignit (a dish with coconut) and sautéed kangkong.

- When was the last time that (name of child who participated in the Hearth) was weighed?

With Complete Attendance	With Incomplete Attendance
Kimberly (Patag) – May 2002	CS (Patag) – May 2002
Mariely Rose (Sto.Nino)- June 2002	Corina (Sto. Nino) – June 2002
	Gelli (RM TAN) – April 2002
	Jerlyn (RM TAN)-March 2002
Trina (Lao)- May 2002	Trisha (Lao) – May 2002
Lyn (Lundag) – May 2002	Mavel (Lundag) – June 2002

- Do you know your child's weight? Who told you about it?
  All 10 mothers responded yes. Children's weights are as follows:
  - Kimberly – 9.kg – Informed by the Barangay Health Worker
  - CS – 14 kg – Informed by BHW
  - Mariely Rose – 9.2 kg. – Informed by BHW
  - Corina – 9.9 kg. – Informed by Barangay Nutrition Scholar
  - Gelli – 7.8 kg – Informed by the BHW
  - Jerlyn – 13.7 kg. – Informed by the BHW
  - Trina – 9 kg. – Mother herself, taught by the health worker
  - Trisha – 10 kg.- Informed by the BHW
  - Mavel – 9.9 kg. – Informed by the BNS
  - Lyn – 8.2 kg – Informed by the BHW

- Do you have your GMC (yellow card)? What do you understand about the card? Who made you understand it?
  - I didn't bring the GMC
  - The weight is not plotted on the card; it's only in the BNS' notebook.
  - The weight is not plotted on the card after 9 months. The GMC serves as information on the weight and immunization.
  - None
  - I wasn't able to bring one
  - The GMC records immunization and weights
  - The yellow card is for immunization; the BHW taught us
  - The yellow card is not with me, its at the Health Center
  - That my child is a second degree; the BHW and BNS informed me.

- Are there follow-ups done by the health workers for your child? When was this done? How?

With Complete Attendance	With Incomplete Attendance
Yes, every month- there is weighing	There are no visits done at home. There is only weighing at the Health Center
None	None
Yes, this month of June. The children were weighed.	Yes, every month. The children were given milk and "bulgur" (not from The project)
	There is no follow-up
	There is no follow-up. The Health Center is not even utilized.
Yes, every month. We are asked what the health condition of the child is or is Hearth continued at home.	Yes, this May 2002. Weighing and provision of Vitamin A.

- Was there any counseling during the follow up? What advice was given?

With Complete Attendance	With Incomplete Attendance
There is counseling. I was advised to continue feeding the child including fruits and vegetables.	There is counseling. To continue feeding the child.
None	None
Yes, there is. That if my child gets sick or has colds, I have to bring him to the Health Center or to the City Health Office; there	Ways so that the child won't get malnourished.

is a need to monitor the weight of the child every month and feed the child properly.	
None	None
There is counseling. The need to continue the Hearth.	There is counseling. To continue the cooking and feeding at home, and caring for the child.

- During the conduct of the Hearth, what are the things taught to you by the health workers? In what ways?
  - No Answer
  - The use of oil in cooking food so that the child becomes alert/active. The Health Workers shared this to us through lectures.
  - I can't remember any
  - Cleanliness, cooking, washing the hands with soap before and after eating. The health workers taught us this, and demonstrated it too.
  - Health of the child which were shared through lectures.
  - Plant in the surroundings. We were also made to understand what we didn't understand yet.

- What do you remember about foods given during the Hearth?
  - Binignit
  - Puso Burger
  - Mongo Supreme (with milk)
  - Sauteed Mongo
  - Suspas
  - Adobong Kangkong
  - Champorado
  - Boiled Egg
  - Noodles
  - Kimpi cooked in coconut milk
  - Meatballs
  - Linusak/linupak
  - Fish
  - Ginataang Mongo
  - Coconut milk

- What was your role in Hearth?
  - I cooked, served the food to the children, wash and sliced the vegetables
  - Worked together
  - I brought my child, helped in cleaning the vegetables
  - Brought my share of vegetables; brought plate, glass and spoon
  - Assisted in cooking and feeding the child
  - Assisted in preparing and distributing the food

- What was contribution of Hearth to you and to your child? In what ways?
  - My child now eats vegetables (before the Hearth, he didn't eat).
  - It helped a lot – in feeding the child properly, he now eats well.
  - I was able to help in cooking; my child's weight has improved from 2nd degree to 1st.

- We can now cook more nutritious foods
- Yes. I learned from Hearth. My child's weight has improved and he eats better now.
- I learned about nutrients found in food like protein, carbohydrates and fats
- Proper caring and feeding
- I learned about cleanliness

Annexes for Objective 5

Annex E: KI Questions for Mothers or Caregivers

1. How many are you in your family?
2. What is your source of income?
3. 24 hour recall of food intake

Breakfast	Morning snacks	Lunch	Afternoon Snacks	Dinner	Others

4. Have you given other foods besides the ones you have mentioned for the past week?
5. What are the foods that you usually bought?
6. How much do you spend for these foods?
7. What are the free foods available in your area? Source of free food?
8. Did your child get sick after the 12 days NERS? If yes, what illness?
9. What have you done during those times?
10. Do you have a vegetable garden? What kind of vegetables do you have?
11. What do you think are the nutrients your child can get from these vegetables?
12. Did your child receive vitamin A? When? Describe what it looks like.
13. Did your child receive iron supplement? When?
14. Was your child de-wormed? When?
15. How often do you bathe your child? (Probe: time, day of the week.)
16. When do you usually wash your hands?
17. When do you wash the hands of your child?
18. What is the source of your drinking water?
19. Where does the child defecate?
20. Was there any health education conducted by the health workers after the 12 days NERS? If yes, what were the topics/messages discussed?
21. What have you learned from it?
22. Did you apply your learning in caring for your child? How?
23. Did any health personnel visit you regarding your child's rehabilitation? What were the things done during the visit?

Annex F: KI Questions for Health Workers

1. Did you conduct post-activities after the 12 days NERS?
2. If health education was done, what were the topics/messages discussed?
3. How was health education done? How often was it done? Where?
4. What were the visual aids used during the health education?
5. What is your role during Hearth nutrition program in your barangay?
6. What is the role of the Barangay Officials during of Hearth?

7. Did you conduct home visits? How often? What activities did you do?
8. Do you have records on your home visit? (Verify if there are any.)
9. What are the regular services given to the malnourished children?
10. Were the children enrolled in Hearth able to avail of these services?
11. Is there a supplemental feeding program in your barangay? What? When did it happen?
12. Are there any other nutrition programs in your barangay? What are these?
13. Do you think Hearth is more advantageous over the other nutrition programs? If yes, what are the advantages?
14. What is more effective in rehabilitating malnourished children? Why?
15. What are the things that can affect the rehabilitation of malnourished children?

Annex G: KI Questions for Health Professionals

1. What do you think are the things that can affect the rehabilitation of malnourished children?
2. What is the normal weight of a newborn?
3. If a child has low birth weight (LBW), is he/she considered malnourished? If yes, can he/she be rehabilitated?
4. Can LBW affect rehabilitation?
5. Did you conduct health education to the mothers/caregivers? What were the messages/topics? When was the last time you did health education?
6. What were the strategies employed in conducting health education? How often was health education done?
7. How did vitamin supplements help in rehabilitating the children?
8. Is there a regular supply of these vitamin supplements?
9. How often are the vitamin supplements given to the children?
10. What are the regular services provided to the malnourished children?
11. Were the Hearth children able to avail of these services?
12. Are there any other nutrition programs in your barangay? If yes, what?
13. Is there any supplemental feeding in your barangay?
14. Is the Hearth nutrition program more advantageous over other nutrition programs? What are these advantages?
15. What program do you think is more effective in rehabilitating the malnourished children? Why?